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ABSTRACT OF THE DISCLOSURE

A method for relating expected frequencies and magnitudes of temperature fluctuations encountered by the package/chip device over a product lifetime to parameters of an accelerated life test used to assess reliability is provided. A particular market application use for the package/chip device is specified, and expected frequencies and magnitudes of temperature fluctuations of the package/chip device in each of a plurality of temperature fluctuation regimes are quantified. The expected frequencies and magnitudes of fluctuations in each of the regimes are dependent on the particular market application use of the package/chip device. The quantified expected frequencies and magnitudes of the temperature fluctuations of the package/chip device in each of the temperature regimes are incorporated into an accelerated life model in which parameters of the accelerated life test are related to the frequencies and magnitudes of the temperature fluctuations in each of the temperature fluctuation regimes.

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